

I claim:

SUB
A₁ >

1 1. A method for fuel cell packaging comprising the
2 steps of:
3 providing a fuel cell receptacle with a plurality of
4 manifolds;
5 providing a plurality of fuel cells, the fuel cells
6 including ports; and
7 positioning the fuel cells within the fuel cell
8 receptacle such that each of the fuel cells is in direct
9 contact with the receptacle and each of the ports is
10 interfaced with one of the manifolds.

1 2. A method for fuel cell packaging as claimed in
2 claim 1, wherein the ports are positioned on corners of
3 the fuel cells.

1 3. A method for fuel cell packaging as claimed in
2 claim 1, wherein the ports are positioned on both sides of
3 the fuel cells.

1 4. A method for fuel cell packaging as claimed in
2 claim 1, wherein the positioning step comprises
3 positioning the fuel cells in a staggered configuration.

1 5. A method for fuel cell packaging as claimed in
2 claim 1, wherein the positioning step comprises
3 positioning the fuel cells in a spiral configuration.

SUB
A₂ >

1 6. An apparatus for fuel cell packaging comprising:
2 a receptacle including a plurality of port
3 interfaces, the receptacle being shaped to receive a stack
4 of fuel cells with ports such that the port interfaces

5 contact each of the ports providing fluidic connections
6 between the fuel cells and the receptacle.

1 7. An apparatus for fuel cell packaging as claimed
2 in claim 6, wherein the receptacle is shaped to receive
3 the fuel cells in a staggered stack.

1 8. An apparatus for fuel cell packaging as claimed
2 in claim 6, wherein the receptacle is shaped to receive
3 the fuel cells in a spiral stack.

1 9. An apparatus for fuel cell packaging as claimed
2 in claim 6, wherein each of the port interfaces includes
3 an o-ring seal.

1 10. An apparatus for fuel cell packaging comprising:
2 a housing including an upper receptacle and a lower
3 receptacle sized to receive a plurality of fuel cells with
4 ports, the upper and lower receptacles being formed with:
5 a plurality of manifolds,
6 a plurality of staggered surfaces shaped to
7 interface with the ports, and
8 a plurality of conduits between the manifolds
9 and the surfaces; and
10 a mechanism adapted to detachably secure the upper
11 receptacle to the lower receptacle.

1 11. An apparatus for fuel cell packaging as claimed
2 in claim 10, wherein the receptacles are formed with a
3 polymer material.

1 12. An apparatus for fuel cell packaging as claimed
2 in claim 10, further comprising:

3 a shim bonded to each receptacle facing the
4 manifolds.

1 13. An apparatus for fuel cell packaging as claimed
2 in claim 10, wherein the conduits are substantially equal
3 in length.

1 14. An apparatus for fuel cell packaging as claimed
2 in claim 10, wherein the manifolds are arcuate in shape.

1 15. An apparatus for fuel cell packaging as claimed
2 in claim 10, wherein the manifolds are positioned adjacent
3 a perimeter of the housing and vary in depth along the
4 perimeter.

1 16. An apparatus for fuel cell packaging as claimed
2 in claim 10, further comprising:
3 a mechanism adapted to impart a force to a stack of
4 fuel cells positioned in the housing.

1 17. An apparatus for fuel cell packaging as claimed
2 in claim 16, wherein the force mechanism includes:
3 an enclosure with a pressure port for
4 pressurizing the enclosure, the enclosure being
5 mechanically coupled to the housing; and
6 a piston positioned between the enclosure and
7 the stack of fuel cells such that the piston is forced
8 toward the stack of fuel cells when the enclosure is
9 pressurized.

1 18. An apparatus for fuel cell packaging as claimed
2 in claim 10, further comprising:

3 a pair of end caps positioned above and below the
4 upper receptacle and the lower receptacle, respectively;
5 and

6 a mechanism adapted to detachably secure the end caps
7 together.

1 19. An apparatus for fuel cell packaging as claimed
2 in claim 18, wherein the end caps are formed with a
3 polymer material.

1 20. An apparatus for fuel cell packaging as claimed
2 in claim 10, wherein the receptacles are formed with
3 passages between an exterior surface of each receptacle
4 and the manifolds.

1 21. An apparatus for fuel cell packaging as claimed
2 in claim 20, further comprising:

3 a manifold inlet attached to at least one of the
4 receptacles over one of its passages.

1 22. An apparatus for fuel cell packaging as claimed
2 in claim 20, further comprising:

3 a manifold outlet attached to at least one of the
4 receptacles over one of its passages.